

Water Supply Assessment for Sun Lakes Village North Specific Plan Amendment No. 5



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August 31, 2020

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Findings

This Water Supply Assessment anticipates adequate water will be available during normal, single dry, and multiple dry water years during a 20-year projection to meet the projected water demand associated with the development allowed by the Sun Lakes Village Specific Plan Amendment No. 5, in addition to existing and planned future uses, including agricultural and manufacturing uses.

Water Supply Assessment Requirements

The City of Banning Public Works Department provides domestic water services to the City of Banning and portions of unincorporated Riverside County lands located southwesterly of the City limits. As a public water system, the City is mandated by California Water Code Section 10910 to prepare a Water Supply Assessment report that documents sources of water supply, quantifies water demands, evaluates drought impacts, and provides a comparison of water supply and demand. The Water Supply Assessment serves as the basis for the City to determine if adequate water will be available during normal, single dry, and multiple dry water years during a 20-year projection to meet the projected water demand associated with the Project, in addition to providing water for existing and planned future uses, including agricultural and manufacturing uses in its service area.

This Water Supply Assessment was prepared for consideration by the City of Banning City Council, as the lead agency under the California Environmental Quality Act (CEQA) for the environmental review of the Project. The WSA will be included in the City's Environmental Impact Report (EIR) for the Project.

Project Description

The Sun Lakes Village North Specific Plan ("Specific Plan") was originally approved by the City on February 28, 1983. The Project proposes to amend the Specific Plan Land Use Plan from Retail Commercial (Auto Dealer) to Business & Warehouse, Office & Professional, and Retail & Service (see Figure 2- Land Use Plan). The Specific Plan is also proposed to be amended to revise the permitted land uses ;development standards (including maximum building height, setbacks, open space, landscaping ,parking, and signage); design guidelines for development; and administration and implementation provisions. At this time there are no land use development entitlements being sought (i.e. site plan, parcel map, etc. Implementation of the Project's Land Use Plan (Figure 1), would allow up to approximately 877,298 square feet (sf) of Industrial Park, 52,065 sf of medical office, and 37,189 sf of retail use on 47.11 acres.

Figure 1. Land Use Plan



Estimating the Project's Water Demand

At the time this WSA was prepared, there were no land use development entitlements being sought (i.e. site plan, parcel map, etc.) by the Project proponent. In the absence of site-specific details, the water demand for the Project is based on the *City of Banning, Integrated Master Plan, Final Report*, March 2018. According to Table 3.8, *Known Developments Demand Projections*, the project identified as "Silverstone" in the table has the same amount of acreage (47 acres) and the same General Plan land use designation (retail commercial) as the proposed Project. As such, the same water demand used for the Silverstone project is used for the proposed Project which is estimated to be 279-acre feet per year (afy).

City's Water Supply System

Groundwater Supply and Reliability

The City has five sources of groundwater storage supply:

- Banning Storage Unit;
- Banning Bench Storage Unit;
- Banning Canyon Storage Unit;
- Beaumont Storage Unit; and
- Cabazon Storage Unit.

Banning Storage Unit

The Banning Storage Unit is approximately 3.9 square miles in size. With the four wells currently installed within this unit, the City has pumping capacity up to 3,500 gpm, or 5,646 acre-ft/year. The safe yield was determined to be 1,130-acre ft/ year, which is what the 2015 UWMP includes for future production projections.

Banning Bench Storage Unit

The Banning Bench Storage Unit is approximately 5.9 square miles in size. Three wells within this unit can produce up to 3,650 gpm, or 5,888 acre-ft/year. The safe yield was determined to be 1,960 acre-ft/year.

Banning Canyon Storage Unit

The Banning Canyon Storage Unit comprises approximately 1.6 square miles. The Banning Canyon Storage Unit is the largest source of water for the City. The San Gorgonio River, and a

diversion system from the Whitewater River, provide recharge for Banning Canyon. Eight wells within this unit can produce up to 8,600 gpm, or 13,873 acre-ft/year. The safe yield has been determined to be 4,070 acre-ft/year.

Beaumont Storage Unit

The Beaumont Storage is approximately 20 square miles in size. Extraction of water from the Beaumont Storage Unit has been adjudicated, with rights shared amongst the City of Banning, the Beaumont - Cherry Valley Water District, the South Mesa Water District, and the Yucaipa Valley Water District. Five wells within this unit, plus the city’s share of three additional wells co-owned with the Beaumont-Cherry Valley Water District, can produce up to 7,650 gpm, or 12,340 acre-ft/year.

Cabazon Storage Unit

The Cabazon Storage Unit is approximately 27 square miles in size and can store up to 1,000,000 acre-feet. The City does not have exclusive pumping rights for the Cabazon Storage Unit. One well within this unit, C-6, can produce up to 900 gpm, or 1,452 acre-ft/year. The City produced 786 acre-feet from C-6 in 2014. With the installation of additional wells and pipeline, the City could safely extract 2,515 acre-ft/year. Table 1 provides a summary of the available groundwater supplies from 2020 to 2040.

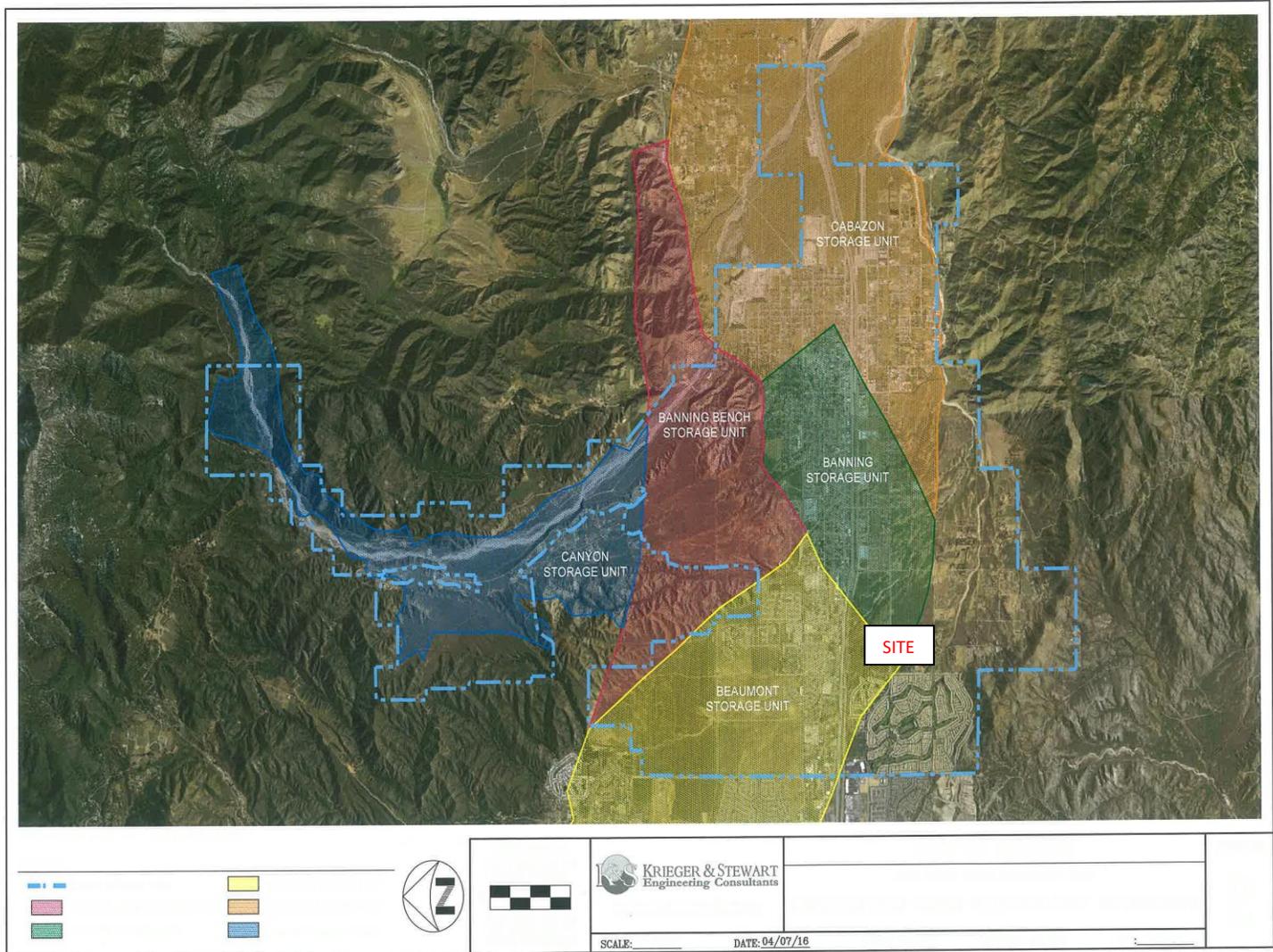
Table1: Groundwater Supplies 2020-2040 (AF/YR)

Basin Name	2020	2025	2030	2035	2040
Beaumont Storage Unit	1,266	1,145	1,029	925	925
Beaumont Storage Unit Recharge	2,718	2,718	2,718	2,718	2,718
Banning Storage Unit	1,130	1,130	1,130	1,130	1,130
Banning Bench Storage Unit	1,960	1,960	1,960	1,960	1,960
Banning Canyon Storage Unit	2,515	2,515	2,515	2,515	2,515
San Gorgonio Pass Subbasin Total	13,659	13,538	13,422	13,318	13,318

Data Source: 2015 UWMP Tab

Sun Lakes Village North SPA No.6 Water Supply Assessment

FIGURE 2: GROUNDWATER BASINS



Beaumont Basin Adjudication

The Beaumont Basin is an adjudicated basin pursuant to the *Stipulation for Entry of Judgment Adjudicating Groundwater Rights in the Beaumont Basin* (the Judgment), a copy of which is included in Appendix A (2015 UWMP). Pursuant to the Judgment, the Court appointed a five-member Watermaster Committee, consisting of representatives from each of the five appropriators, which include City of Banning, City of Beaumont, Beaumont-Cherry Valley Water District, South Mesa Water Company, and Yucaipa Valley Water District.

The safe yield of the Beaumont Basin was initially established at 8,650 AF/yr., to be distributed among the appropriators. The safe yield is to be reevaluated at least once every ten years. Based on the *2013 Reevaluation of the Beaumont Basin Safe Yield*, dated April 3, 2015, the safe yield was determined to be 6,700 AF/yr.

Based on the Beaumont Basin Watermaster 2018 Consolidated Annual Report and Engineering Report, dated February 2020, the City has 52,320 af in its Appropriator’s storage account.

Groundwater Reliability

Because the City's water supply is primarily groundwater, the City is not subject to short-term water shortages resulting from temporary dry weather conditions. Further, as part of the Beaumont Basin adjudication, the City has the option of storing up to 80,000-acre feet of water in the Beaumont Basin. At the end of calendar year 2014, City of Banning had 46,774 AF of water available in Beaumont Basin storage.

Imported Water Supply and Reliability

The City purchases State Water Project (SWP) water from the San Gorgonio Pass Water Agency (SGPWA), who is one of 29 state water contractors. Quantities of SWP water purchased are recharged to the Beaumont Basin at Beaumont-Cherry Valley Water Districts’ Noble Creek spreading facility, which is in the vicinity of Beaumont Avenue and Cherry Valley Boulevard. Quantities of water obtained from SGPWA and recharged to the Beaumont Basin are set forth in Table 2 below. Quantities that will be recharged in the future are dependent upon SWP water availability and storage capacity available to the City.

Table 2: Imported Water Recharged to Beaumont Basin by City of Banning (AF/YR)

2010	2011	2012	2013	2014	2015
1,338	800	1,200	1,200	608	694

Data Source: San Gorgonio Pass Water Agency

On May 22, 2020, the SGPWA announced that the State Water Project (SWP) now expects to deliver 20 percent of requested supplies in 2020 because of above-average precipitation in May. An initial allocation of 10 percent was announced in December and increased to 15 percent in January. This will likely be the final allocation update of 2020. Although the City may expect variable reliability in availability of SWP water, such water is not its primary source of water, and short-term declines in SWP water availability would be offset by the City's substantial reserves of stored groundwater and would not result in a substantial impact to the City's water supply

Water Supplies During Normal, Single-Dry, and Multiple- Dry Year Conditions

The demand quantities were calculated based on an average per capita demand within the City's service area of 220 gallon per capita per day ("gpcd"), with future actual demands of the two proposed specific plan developments (Butterfield Ranch and Rancho San Gorgonio) at the demands set forth in their respective water supply assessments.

Table 3: Normal Year Supply and Demand Comparison (AF/YR)

	2020	2025	2030	2035	2040
Supply Totals	13,659	13,538	13,422	13,318	13,318
Demand Totals	10,515	11,320	12,047	12,837	13,629
Difference	+3,144	+2,218	+1,375	+481	-311

Data Source: 2015 UWMP Table 6-4.

Table 4: Single Dry Year Supply and Demand Comparison (AF/YR)

	2020	2025	2030	2035	2040
Supply Totals	13,659	13,538	13,422	13,318	13,318
Demand Totals	10,515	11,320	12,047	12,837	13,629
Difference	+3,144	+2,218	+1,375	+481	-311

Data Source: 2015 UWMP Table 6-5.

Table 5: Multiple Dry Years Supply and Demand Comparison (AF/YR)

		2020	2025	2030	2035	2040
First Year	Supply Totals	13,659	13,538	13,422	13,318	13,318
	Demand Totals	10,515	11,320	12,047	12,837	13,629
Second Year	<u>Difference</u>	+3,144	+2,218	+1,375	+481	-311
Second Year	Supply Totals	13,659	13,538	13,422	13,318	13,318
	Demand Totals	10,515	11,320	12,047	12,837	13,629
Third Year	<u>Difference</u>	+3,144	+2,218	+1,375	+481	-311
Third Year	Supply Totals	13,659	13,538	13,422	13,318	13,318
	Demand Totals	10,515	11,320	12,047	12,837	13,629
		+3,144	+2,218	+1,375	+481	-311

Data Source: 2015 UWMP Table 6-6

¹Due to reliance on ground water supply reliability is the same during normal, single-dry, and multiple-dry water years (2015 UWMP)

Although projected supply totals are less than projected demand totals for 2040, the City has 52,320 AF of stored water in its Beaumont Basin storage account, which is not accounted for in the projected supply totals. Therefore, the City has ample water supplies to meet projected demands through 2040.

Water Shortage Contingency Planning

The City of Banning relies on groundwater as its primary source of water supply, and periodic drought has historically not substantially affected the groundwater levels. For this reason, the water shortage contingency analysis mainly focuses on water supply interruption resulting from equipment failure and disaster. The City adopted its Water Shortage Contingency Plan (WSCP) in 1991 with adoption of City Ordinance No. 1040. The WSCP outlines a plan of action in the event of a water shortage caused by a catastrophic event, such as electrical power failure, earthquake, pipeline failure, or other event that results in the City's potential inability to meet the water demands of its customers.

At these demands, the City will be able to meet future demands through 2035 with existing supplies, without using any of the City's 52,320 AF of groundwater in reserve storage in the Beaumont Storage Unit. If the stored groundwater is used to supplement demands, the City will be able to satisfy projected demands at 220 gpcd without acquiring additional quantities of replenishment water for many years beyond 2040.

Project Water Demand vs. City Water Supply

Table 6 shows a comparison of the Project's projected water demand compared to the available City water supplies for the period 2020 to 2040.

Table 6. Comparison of Project Demand vs. Projected Deliveries (afy)

Land Use	2020	2025	2030	2035	2040
Industrial	94	99	103	107	111
Commercial	2,281	2,382	2,484	2,586	2,694
Total	2,375	2,481	2,587	2,693	2,805
Project Demand	279	279	279	279	279
Project's Percent of Total	11.7%	11.2%	10.8	10.4	9.9%

Data Source: 2015 UWMP Table 3-1

As shown in Table 6 above, the Project's expected water demand is within the 2015 UWMP's total projected water supplies available during normal, single dry, and multiple dry water years for the next 20 years. Therefore, there will be adequate supplies to meet the projected water demand associated with the Project in addition to the existing and other planned future uses of the City's water system.

Summary

The Water Supply Assessment has been prepared to meet the requirements of Water Code Section 10910 of the Water Code. The assessment indicates adequate water will be available during normal, single dry, and multiple dry water years during a 20-year projection to meet the projected water demand associated with the development allowed by the Sun Lakes Village Specific Plan Amendment No. 5, in addition to existing and planned future uses, including agricultural and manufacturing uses.